

AMENDMENT TO THE CLAIMS

The following is a detailed listing of all claims that are, or were, in the Application.

1. (Withdrawn) An apparatus for processing description information of multimedia data, comprising:

a server 100 adding description information to multimedia; and

a terminal 200 transmitting/receiving multimedia data to/from the server 100, storing a user's usage history about the multimedia data, grasping a preference of a user with the stored usage history and providing the preference of the user to the server 100.

2. (Withdrawn) The apparatus of claim 1, wherein the server 100 further includes a description information descriptor 110 adding description information to the multimedia data.

3. (Withdrawn) The apparatus of claim 2, wherein the description information descriptor 110 classifies the description information added to the multimedia data into common characteristic information 300 commonly applicable to the multimedia data and inherent characteristic information 400 inherently applicable to the multimedia data, and the common characteristic information 300 and the inherent characteristic information 400 including subordinate characteristic information, respectively.

4. (Withdrawn) The apparatus of claim 2, wherein the description information descriptor 110 classifies the description information into common characteristic information 300 commonly applicable to the multimedia data and inherent characteristic information 400 inherently applicable to the multimedia data, a program ID 500 for distinguishing multimedia data having the same common characteristic information 300 from multimedia data having different common characteristic information and an inherent ID (Identification) 600 for identifying each of the multimedia data, and adds them to the multimedia data.

5. (Withdrawn) The apparatus of claim 4, wherein the common characteristic information includes not less than one of genre information, director information, leading actor and actress information and title information.

6. (Withdrawn) The apparatus of claim 4, wherein the inherent characteristic information includes not less than one item of a plot, an episode sequence in a series, a running time of multimedia data.

7. (Withdrawn) The apparatus of claim 2, wherein the description information descriptor 110 classifies description information into characteristic information, a program ID (Identification) 500 for distinguishing multimedia data having the same common characteristic information from multimedia data having different common characteristic information, and an inherent ID 600 for classifying each of the multimedia data.

8. (Withdrawn) The apparatus of claim 7, wherein the characteristic information includes type information 350 for classifying itself into common characteristic information 300 or inherent characteristic information 400.

9. (Withdrawn) The apparatus of claim 2, wherein the description information descriptor 110 classifies the description information into characteristic information, a program ID 500 for distinguishing multimedia data having the same common characteristic information 300 from multimedia data having different common characteristic information, an inherent ID for identifying each of the multimedia data and episode sequence information, and adds them to the multimedia data.

10. (Withdrawn) The apparatus of claim 9, wherein the characteristic information includes application group information 900 indicating applicable to other multimedia data

having the same program ID.

11. (Withdrawn) The apparatus of claim 10, wherein the application group information 900 includes first episode information 910 and last episode information 920 in order to describe a range in which each of the characteristic information can be commonly applied to the multimedia data having the same program ID.

12. (Withdrawn) The apparatus of claim 2, wherein the description information descriptor 110 adds an inherent ID 600 to the multimedia data in order to identify each of the characteristic information and each of the multimedia data.

13. (Withdrawn) The apparatus of claim 12, wherein each of the characteristic information further includes application group information 900 indicating applicable to other multimedia data having the same program ID.

14. (Withdrawn) The apparatus of claim 13, wherein the application group information 900 includes an application ID 930 in order to identify each characteristic information commonly applied to the multimedia data.

15. (Withdrawn) The apparatus of claim 1, comprising:
a display unit 220 displaying multimedia transmitted from the server 100;
a data analyzing unit 230 classifying the transmitted multimedia data and comparing program IDs of the multimedia data;
a memory unit 240 storing a user's usage history about the multimedia data; and
an I/O (Input / Output) interface unit 210 transmitting a user's preference to the server 100.

16. (Withdrawn) The apparatus of claim 15, wherein the data analyzing unit classifies the multimedia data transmitted from the server 100 into a common list and an inherent list.

17. (Withdrawn) The apparatus of claim 16, wherein the common list is stored in the memory unit 240.

18. (Withdrawn) The apparatus of claim 16, wherein the common list includes link information linking the common list itself to the inherent list.

19. (Withdrawn) The apparatus of claim 16, wherein the common list is stored in an additional memory unit.

20. (Withdrawn) The apparatus of claim 19, wherein the common list includes link information linking the common list stored in the additional memory unit to the inherent list.

21. (Withdrawn) A method for processing description information of multimedia data, comprising:

classifying description information into common characteristic information 300 commonly applicable to multimedia data and inherent characteristic information 400 inherently applicable to the multimedia data when the multimedia data is transmitted from a server to a terminal;

constructing a hierarchical information description format by adding each characteristic information of the multimedia data to a subordinate of the common characteristic information 300 and the inherent characteristic information 400, respectively; and

adding the hierarchical information description format to the multimedia data.

22. (Withdrawn) The method of claim 21, wherein the hierarchical information description format adding process further includes the step of:

adding a program ID 500 for distinguishing multimedia data having the same common characteristic information from multimedia data having different common characteristic information to the multimedia data.

23. (Withdrawn) The method of claim 22, wherein the program ID adding step further includes the sub-step of:

adding an inherent ID 600 for identifying each of the multimedia to the multimedia data.

24-79. (Canceled)

80. (Currently amended) A method implemented by an apparatus for processing information related to consumption of multimedia content, the method comprising:

receiving one or more group descriptions from a server about digital broadcast, each of the one or more group descriptions describing actual content elements common in each member of a respective group of multimedia objects and including a title for the respective group and a group identifier that is a distinct element of the group description and identifies the respective group of multimedia objects;

storing the group identifier and at least a portion of each of the one or more group descriptions in the apparatus;

receiving a first content description and a first group description from the server, the first content description describing content in a first multimedia object and including (i) a title for the first multimedia object, (ii) a first object identifier that identifies the first

multimedia object, and (iii) a first group reference that includes a first group identifier to identify a first group of multimedia objects to which the first multimedia object belongs, wherein the first group description describes actual content elements common in each member of the first group of multimedia objects and includes at least a title for the first group of multimedia objects;

comparing the first group identifier with the group identifier of each respective group of the one or more previously stored group descriptions if the first multimedia object is displayed on a display terminal of the apparatus; and

if the first group identifier is different from the previously stored group identifiers, storing in the apparatus the first group identifier and at least a portion of the first group description about ~~common~~ the actual content elements common in each member of the first group of multimedia objects.

81. (Previously presented) The method of claim 80, further comprising:
storing a usage history that lists user actions and associates the first object identifier with each user action that is related to the first multimedia object.

82. (Previously presented) The method of claim 81, further comprising:
providing first link information in the usage history, wherein the first link information is configured to link the first group description to each user action that is related to the first multimedia object and listed in the usage history.

83. (Previously presented) The method of claim 82, wherein the first link information includes the first group identifier.

84. (Previously presented) The method of claim 82, wherein storing the usage history includes storing the usage history with the first link information, but without storing

the received first group description if the first group identifier is the same as one of the previously stored group identifiers.

85-86. (Canceled)

87. (Previously presented) The method of claim 80, wherein the first group of multimedia objects represents a series of episodes, and wherein the first group reference indicates that the first multimedia object represents an episode of the series.

88. (Previously presented) The method of claim 87, wherein the first group reference specifies an episode number for the first multimedia object in the series of episodes.

89. (Previously presented) The method of claim 80, wherein the first content description includes a hierarchical structure in which the first group reference is represented at the same hierarchical level as a container including content description elements.

90. (Previously presented) The method of claim 89, wherein the content description elements include an element describing a genre for the first multimedia object.

91. (Previously presented) The method of claim 89, wherein the content description elements include an element specifying a director, an actor, or an actress for the first multimedia object.

92. (Previously presented) The method of claim 89, wherein the content description elements include an element for a textual description of the content in the first

multimedia object.

93. (Canceled)

94. (Previously presented) The method of claim 80, wherein the first group description specifies a genre for the first group of multimedia objects.

95. (Previously presented) The method of claim 80, wherein the first group description specifies a director or one or more actors or actresses for the first group of multimedia objects.

96. (Currently amended) A computer program product, ~~tangibly~~ embodied in a computer readable medium, for processing information related to consumption of multimedia content, the computer program comprising instructions to cause data processing apparatus to perform operations comprising:

receiving one or more group descriptions from a server about digital broadcast, each of the one or more group descriptions describing actual content elements common in each member of a respective group of multimedia objects and including a title for the respective group and a group identifier that is a distinct element of the group description and identifies the respective group of multimedia objects;

storing the group identifier and at least a portion of each of the one or more group descriptions;

receiving a first content description and a first group description from the server, the first content description describing content in a first multimedia object and including (i) a title for the first multimedia object, (ii) a first object identifier that identifies the first multimedia object, and (iii) a first group reference that includes a first group identifier to identify a first group of multimedia objects to which the first multimedia object belongs,

wherein the first group description describes actual content elements common in each member of the first group of multimedia objects and includes at least a title for the first group of multimedia objects;

comparing the first group identifier with the group identifier of each respective group of the one or more previously stored group descriptions if the first multimedia object is displayed on a display terminal of the apparatus; and

if the first group identifier is different from the previously stored group identifiers, storing the first group identifier and at least a portion of the first group description about the actual ~~common~~ content elements common in each member of the first group of multimedia objects.

97. (Previously presented) The product of claim 96, the computer program further comprises instructions to cause data processing apparatus to perform operations comprising:

storing a usage history that lists user actions and associates the first object identifier with each user action that is related to the first multimedia object.

98. (Previously presented) The product of claim 97, wherein the computer program further comprises instructions to cause data processing apparatus to perform operations comprising:

providing first link information in the usage history, wherein the first link information is configured to link the first group description to each user action that is related to the first multimedia object and listed in the usage history.

99. (Previously presented) The product of claim 98, wherein storing the usage history includes storing the usage history with the first link information, but without storing the received first group description if the first group identifier is the same as one of the previously stored group identifiers.

100-101. (Canceled)

102. (Previously presented) The product of claim 96, wherein the first group of multimedia objects represents a series of episodes, and wherein the first group reference indicates that the first multimedia object represents an episode of the series.

103. (Previously presented) The product of claim 102, wherein the first group reference specifies an episode number for the first multimedia object in the series of episodes.

104. (Previously presented) The product of claim 96, wherein the first content description includes a hierarchical structure in which the first group reference is represented at the same hierarchical level as a container including content description elements.

105. (Previously presented) The product of claim 104, wherein the content description elements include an element describing a genre for the first multimedia object.

106. (Previously presented) The product of claim 104, wherein the content description elements include an element specifying a director, an actor, or an actress for the first multimedia object.

107. (Previously presented) The product of claim 104, wherein the content description elements include an element for a textual description of the content in the first multimedia object.

108. (Canceled)

109. (Previously presented) The product of claim 96, wherein the first group description specifies a genre for the first group of multimedia objects.

110. (Previously presented) The product of claim 96, wherein the first group description specifies a director or one or more actors or actresses for the first group of multimedia objects.

111. (Currently amended) A system for processing information related to consumption of multimedia content, the system comprising:

a display terminal;

a memory unit; and

data processing apparatus configured to:

receive one or more group descriptions from a server about digital broadcast, each of the one or more group descriptions describing actual content elements common in each member of a respective group of multimedia objects and including a title for the respective group and a group identifier that is a distinct element of the group description and identifies the respective group of multimedia objects;

store the group identifier and at least a portion of each of the one or more group descriptions in the memory unit;

receive a first content description and a first group description from the server, the first content description describing content in a first multimedia object and including (i) a title for the first multimedia object, (ii) a first object identifier that identifies the first multimedia object, and (iii) a first group reference that includes a first group identifier to identify a first group of multimedia objects to which the first multimedia object belongs, wherein the first group description describes actual content elements common in each member of the first group of multimedia objects and includes at least a title for the first group of multimedia objects;

compare the first group identifier with the group identifier of each respective group of the one or more previously stored group descriptions if the first multimedia object is displayed on the display terminal; and

if the first group identifier is different from the previously stored group identifiers, store the first group identifier and at least a portion of the first group description about ~~common~~ content elements common in each member of the first group of multimedia objects in the memory unit.

112. (Previously presented) The system of claim 111, wherein the data processing apparatus is further configured to:

store a usage history in the memory unit, the usage history listing user actions and associating the first object identifier with each user action that is related to the first multimedia object.

113. (Previously presented) The system of claim 112, the data processing apparatus further configured to:

provide first link information in the usage history, wherein the first link information is configured to link the first group description to each user action that is related to the first multimedia object and listed in the usage history.

114. (Previously presented) The system of claim 113, wherein storing the usage history includes storing the usage history with the first link information, but without storing the received first group description if the first group identifier is the same as one of the previously stored group identifiers.

115-116. (Canceled)

117. (Previously presented) The system of claim 111, wherein the first group of multimedia objects represents a series of episodes, and wherein the first group reference indicates that the first multimedia object represents an episode of the series.

118. (Previously presented) The system of claim 117, wherein the first group reference specifies an episode number for the first multimedia object in the series of episodes.

119. (Previously presented) The system of claim 111, wherein the first content description includes a hierarchical structure in which the first group reference is represented at the same hierarchical level as a container including content description elements.

120. (Previously presented) The system of claim 119, wherein the content description elements include an element describing a genre for the first multimedia object.

121. (Previously presented) The system of claim 119, wherein the content description elements include an element specifying a director, an actor, or an actress for the first multimedia object.

122. (Previously presented) The system of claim 119, wherein the content description elements include an element for a textual description of the content in the first multimedia object.

123. (Canceled)

124. (Previously presented) The system of claim 111, wherein the first group

description specifies a genre for the first group of multimedia objects.

125. (Previously presented) The system of claim 111, wherein the first group description specifies a director or one or more actors or actresses for the first group of multimedia objects.